

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JASON STIPES

Appeal No. 2003-1485
Application No. 09/885,086

HEARD: January 22, 2004

Before TORCZON, GROSS, and BLANKENSHIP, ***Administrative Patent Judges.***

GROSS, ***Administrative Patent Judge.***

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 10, which are all of the claims pending in this application.

Appellant's invention relates to a high speed data cable. Claim 1 is illustrative of the claimed invention, and it reads as follows:

1. A high speed data cable comprising:

a plurality of individual twisted pairs, each individual twisted pair includes a first insulated conductor twisted about a second insulated conductor;

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a jacket surrounding said plurality of individual twisted pairs,

at least two of said twisted pairs each being laterally wrapped with a metal composite shield having a polymer layer and a metal layer, and said metal layer having a thickness of from about 0.0003 inches to 0.001 inches,

each of said shields has an inner surface and an outer surface opposite the inner surface and said outer surface facing said jacket,

each shield has a first overlapping longitudinal side and a second overlapping longitudinal side, and

said first and second overlapping sides being bonded together by a bonding agent.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Dembiak et al. (Dembiak)	3,703,605	Nov. 21, 1972
Krabec et al. (Krabec)	4,477,693	Oct. 16, 1984
Gareis	5,486,649	Jan. 23, 1996
Deitz, Sr. et al. (Deitz)	5,956,445	Sep. 21, 1999

Claims 1 and 7 stand rejected under 35 U.S.C. § 103 as being unpatentable over Deitz in view of Dembiak.

Claims 2 and 3 stand rejected under 35 U.S.C. § 103 as being unpatentable over Deitz in view of Dembiak and Gareis.

Claims 4 through 6 and 8 through 10 stand rejected under 35 U.S.C. § 103 as being unpatentable over Deitz in view of Dembiak and Krabec.

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Reference is made to the Examiner's Answer (Paper No. 9, mailed January 29, 2003) for the examiner's complete reasoning in support of the rejections, and to appellant's Brief (Paper No. 8, filed November 18, 2002) and Reply Brief (Paper No. 10, filed April 1, 2003) for appellant's arguments thereagainst.

OPINION

As a preliminary matter we note that appellant indicates on page 4 of the Brief that claims 1 and 7 stand or fall together, claims 2 and 3 stand or fall together, and claims 4 through 6 and 8 through 10 stand or fall together. As appellant likewise argues the claims according to the proposed groupings, we will treat the claims as falling into the three groups with claims 1, 2, and 4 as representative.

We have carefully considered the claims, the applied prior art references, and the respective positions articulated by appellant and the examiner. As a consequence of our review, we will affirm the obviousness rejections of claims 1 through 10.

Appellant argues (Brief, page 5, and Reply Brief, page 4) that Deitz fails to disclose that each individual shield is bonded along its longitudinal length, as recited in claim 1. We disagree. Deitz shows the seam for the shield three different ways - as the two edges overlapping, for shields 16 and 16A in

Figures 1 and 6, as the two edges meeting but not overlapping, for shields 36 and 36A in Figures 4 and 5, and as no seam at all, for shield 18 in Figure 1. Thus, the embodiment of Figures 1 and 6 includes an overlap along the longitudinal length of the individual shield.

Appellant further argues (Brief, page 6) that Deitz and Dembiak do not have the required motivation or suggestion "to allow an artesian [sic] to extrapolate from Dembiak's bonded overall shield into Deitz' individual shield." Yet, according to appellant (Brief, page 5), "even if Dembiak provided teaching and motivation to bond the individual shields of Deitz, one relying on Dembiak and Deitz, would not use an aluminum layer between .0003 and .001 inches." In particular, appellant explains (Brief, page 6) that Dembiak teaches a thickness of .008 inches for an overall moisture barrier, whereas Deitz uses a thin individual shield for controlling electricals (rather than water prevention). Appellant concludes (Brief, pages 6-7) that to use Dembiak's teaching of bonding an overlapping edge, the skilled artisan would use aluminum with a thickness of .008 inches for the overall shield and would bond an overlapping edge thereof to prevent water penetration rather than bond an overlapping edge of the individual shield.

We disagree with appellant. Dembiak discloses (column 2, lines 12-15) that "slippage along the seam may be eliminated **and** the effectiveness of the strip as a moisture barrier or shield enhanced substantially if the seam between the overlapping edges is sealed" (emphasis ours). Further, Dembiak teaches (column 2, lines 32-37) that "to improve the corrosion resistance of the barrier or shield **and** eliminate the slippage along the overlapping seam, a special adhesive copolymer . . . may be applied to both sides of the metallic tape to form a shielding layer" (emphasis ours). Thus, Dembiak teaches bonding an overlapping edge to prevent slippage as well as to create a more effective moisture barrier. The skilled artisan would have desired the prevention of slippage for the individual shield as well as for the overall shield without regard for the thickness of the layers. Further, the bonding of the overlap to prevent slippage would not require any particular thickness of the layer. Accordingly, the skilled artisan would have applied Dembiak's teaching to bond an overlapping edge to Deitz's individual shield.

Appellant alleges (Brief, page 7) that the examiner used improper hindsight in combining the two references. We have

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already indicated **supra** that the examiner appropriately applied the explicit teachings of the references.

Appellant additionally contends (Brief, page 7, and Reply Brief, pages 3-4) that the references fail to disclose appellant's unexpected advantages of "improved resistance to deformation, and in turn, increased impedance stability over conventional design cables." However, Dembiak teaches elimination of slippage which one would expect would reduce deformation. Further, for unexpected results to be given substantial weight in the determination of obviousness, the burden is upon appellant to show a nexus between the merits of the claimed invention and objective evidence of unexpected results. **Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.**, 776 F.2d 281, 305 n.42, 227 USPQ 657, 673-674 n.42 (Fed. Cir. 1985), **cert. denied**, 475 U.S. 1017 (1986). Objective evidence of unexpected results must be factually supported by an appropriate affidavit or declaration to be of probative value. See **In re De Bauwe**, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984). Arguments of counsel cannot take the place of evidence in the record. **In re Schulze**, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965). As appellant has provided no factual evidence to

support arguments of unexpected results, we are unpersuaded by this argument.

Appellant asserts (Brief, page 8) that Dembiak is not analogous art. Appellant argues that the field of endeavor is different because the invention relates to "data cables with individually shielded twisted pairs" whereas Dembiak relates to "communication cables with sealed moisture barriers." However, both the invention and Dembiak are in the field of communication cables, and, therefore, are within the same field of endeavor. Thus, we are unconvinced that the examiner erred in rejecting claims 1 and 7 over Deitz in view of Dembiak. Accordingly, we will sustain the obviousness rejection of claims 1 and 7.

For the rejection of claims 2 and 3, the examiner adds Gareis to the primary combination of Deitz and Dembiak. Appellant contends (Brief, pages 8-9) that Gareis "has nothing to do with preventing water penetration" and, thus, "[o]ne modifying the Deitz cable, to prevent water penetration would therefore utilize the Dembiak design." However, Dembiak uses an overlapping edge not just to prevent water penetration, but also to reduce slippage. Gareis (column 1, lines 33-35) explains that prior art designs with overlaps still have a loosening of the shield where it overlaps (which in turn causes impedance

instability). Gareis solves the problem of the prior art by having the longitudinal side folded as recited in claims 2 and 3. Accordingly, Gareis improves upon the design of Dembiak in terms of slippage. Therefore, it would have been obvious to combine Gareis with Deitz and Dembiak, and we will sustain the obviousness rejections of claims 2 and 3.

Regarding claims 4 through 6 and 8 through 10, the examiner combines Krabec with Deitz and Dembiak. Appellant argues (Brief, pages 9-10) that since Krabec relates to an overall shield, rather than to individual shields of twisted pairs, the skilled artisan at best would modify Deitz's overall shield with Krabec's teachings rather than the individual shields.

Krabec (column 1, lines 32-46) teaches that thin metal foils are generally made as a laminate with a polyester or polypropylene member to prevent structural failure. Further, the polyester or polypropylene member causes a nonconductive gap or slot through the shield which allows transmission of RF energy therethrough. Krabec teaches using metal layers on both sides of the polyester or polypropylene member to reduce the leakage. Although Krabec's disclosure relates to the overall shield, the skilled artisan would expect the same issues to occur for the overlapping edge of Deitz's individual shields. Accordingly, the

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skilled artisan would have applied the teachings of Krabec to the individual shields. The level of the skilled artisan should not be underestimated. ***See In re Sovish***, 769 F.2d 738, 743, 226 USPQ 771, 774 (Fed. Cir. 1985).

Appellant contends (Brief, page 10, and Reply Brief, page 7) that Krabec requires that the aluminum layers have a thickness of 0.0035 inches, which is greater than appellant's layer thickness, and that the skilled artisan would not ignore such thickness requirements. However, the relevant teachings of Krabec are in the background section and are applicable to any thickness of aluminum.

Last, appellant asserts (Brief, page 10, and Reply Brief, page 6) that Krabec is nonanalogous art because it concerns "multiple shielded coaxial cables with very low transferred impedance," whereas the invention relates to individually shielded twisted pair cables. However, both are in the field of electrical cables. Accordingly, they are in the same field of endeavor. Thus, we will sustain the obviousness rejections of claims 4 through 6 and 8 through 10.

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CONCLUSION

The decision of the examiner rejecting claims 1 through 10 under 35 U.S.C. § 103 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

RICHARD TORCZON)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
ANITA PELLMAN GROSS)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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HOWARD B. BLANKENSHIP)	
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